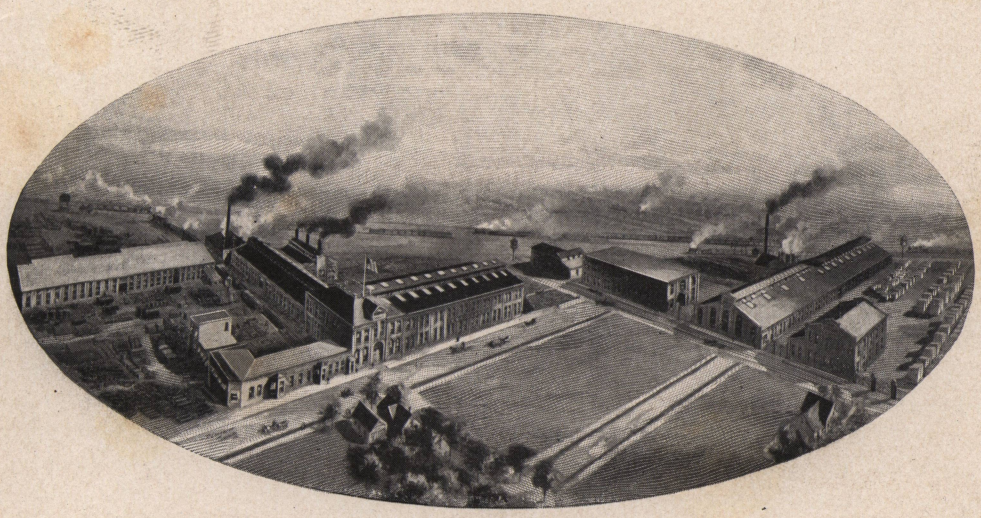
THE WESTERN GAS CONSTRUCTION CO.

GAS ENGINEERS AND BUILDERS

FORT WAYNE, INDIANA.

SAN FRANCISCO NEW YORK

WORKS BULLETIN



OUR WORKS

The largest plant in the country devoted exclusively to the Manufacture of

GAS WORKS APPARATUS

THE PAGE PRINTING CO.,
Fort Wayne, Ind.

A TRIP TO AND THROUGH OUR WORKS.

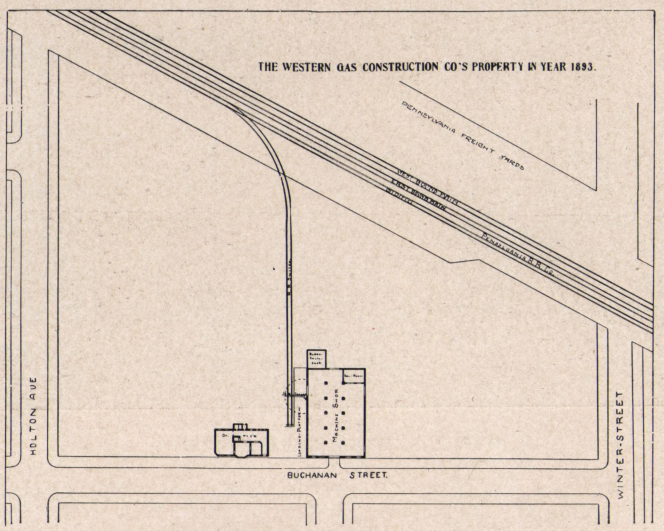
OUR PASSENGER DEPARTMENT

The history of this Company's development has always proved an interesting one to the fraternity.

In 1888 conditions appeared very favorable for an engineering firm in the west, and a partnership was formed by Mr. O. N. Guldlin, as Manager and Engineer; F. D. Moses, as Superintendent; and W. A. Croxton, as Secretary; opening a modest one room office in Fort Wayne, Indiana. Considerable work was secured by Mr. Moses, and subsequently Mr. Croxton in 1890, apparently seeing more profitable opportunities on other lines, soon withdrew, although by that time the business had justified more commodious business offices, and a Company was incorporated with Mr. Guldlin as the principal owner and president. and which position he has since retained.

A vigorous policy of introducing originality in design of gas apparatus, resulted in a steadily growing business, and on the expiration of the Lowe patent on water gas apparatns in 1892, the Company, who had previously given considerable attention to this process, entered the market with its design and several contracts were secured. This branch of the business was then vigorously pushed and has ever since been given special attention; a number of patents being applied for and allowed, covering the development of the apparatus, and which development has continued, but with additional patents still pending, as represented in the perfected type of water gas apparatus now built by the Company, and in operation in some of the largest gas companies in the country. The special design of double gate valves for gas works was designed and patented during the earlier years and by their popularity materially increased the Company's business.

In 1893 it was clearly demonstrated that the business volume was in excess of what could be systematically handled, being entirely dependent on outside shops for the execution of the work, and as a result, about twenty-eight (28) lots were bought alongside of the Pennsylvania Railroad and the original machine shop built, about 65x100 feet, as well as what was at that time considered a very commodious office building adjoining.

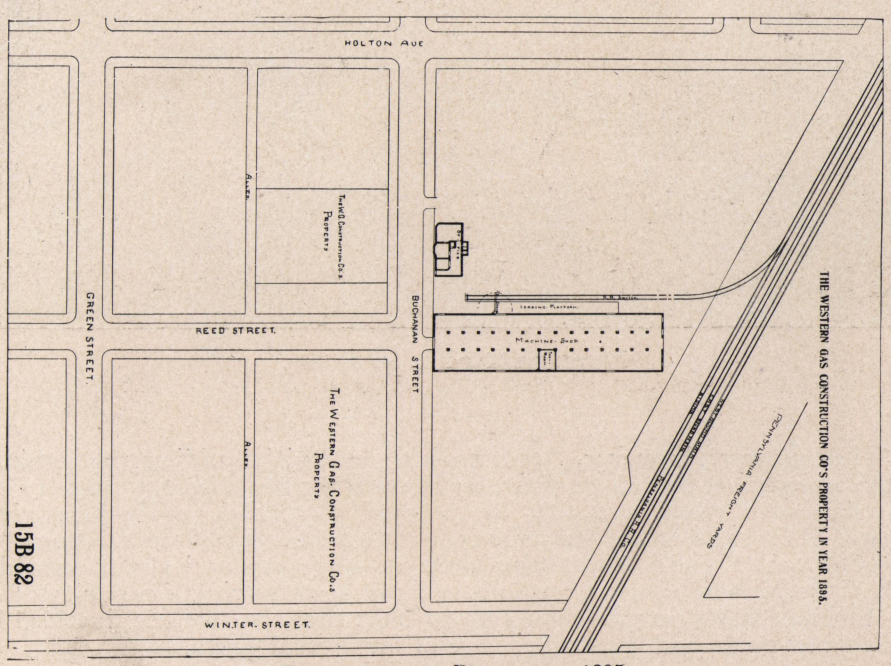


PROPERTY AND BUILDING, 1893.

OUR FIRST SHOP, 1893.

INTERIOR OF FIRST SHOP, 1893.

This, however, only gave partial relief, and two years later, in 1895, the machine shop was extended 150 feet, which at that time was considered sufficient for years to come, with a complete installation of modern and special tools for the work.

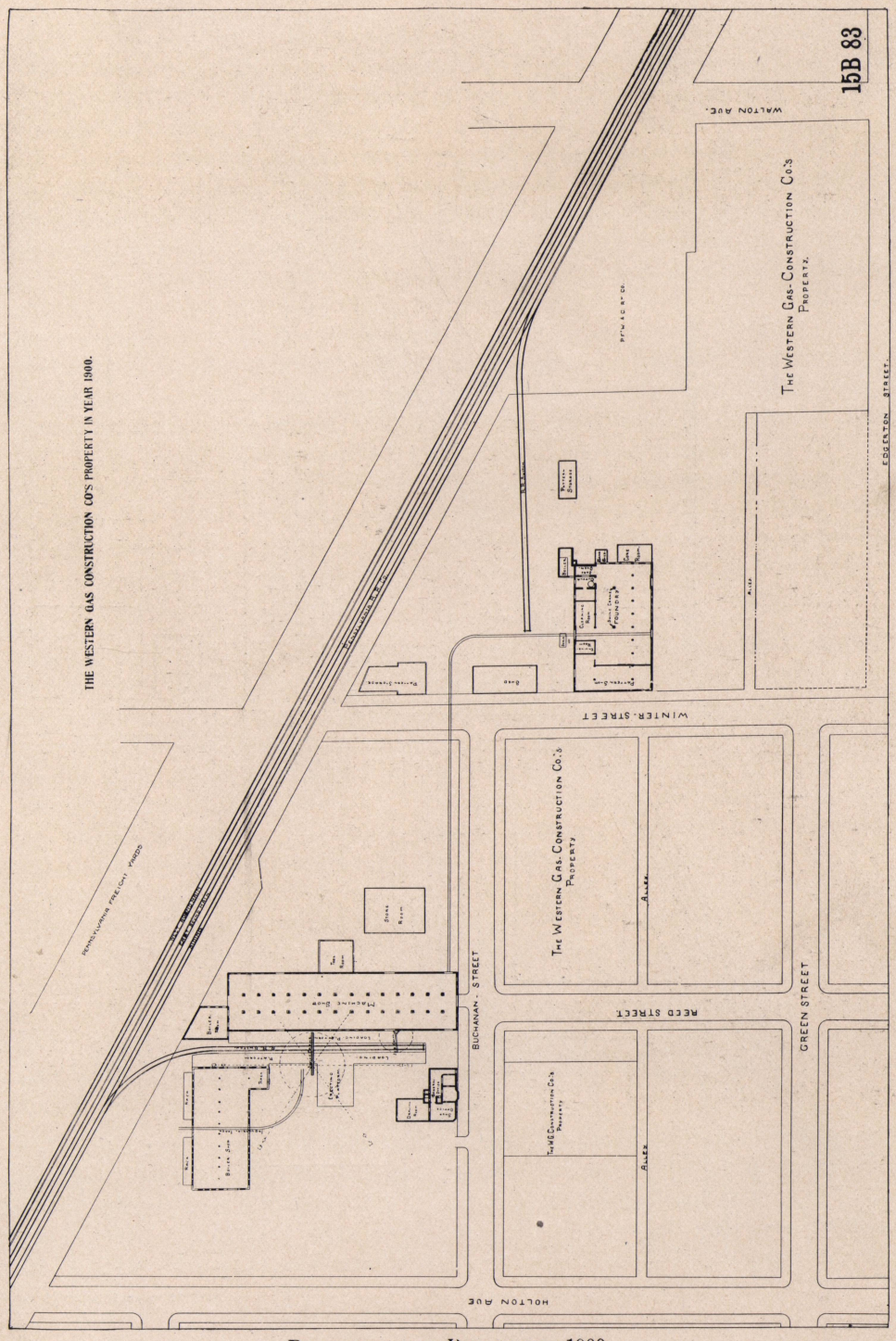


PROPERTY AND BUILDINGS, 1895.

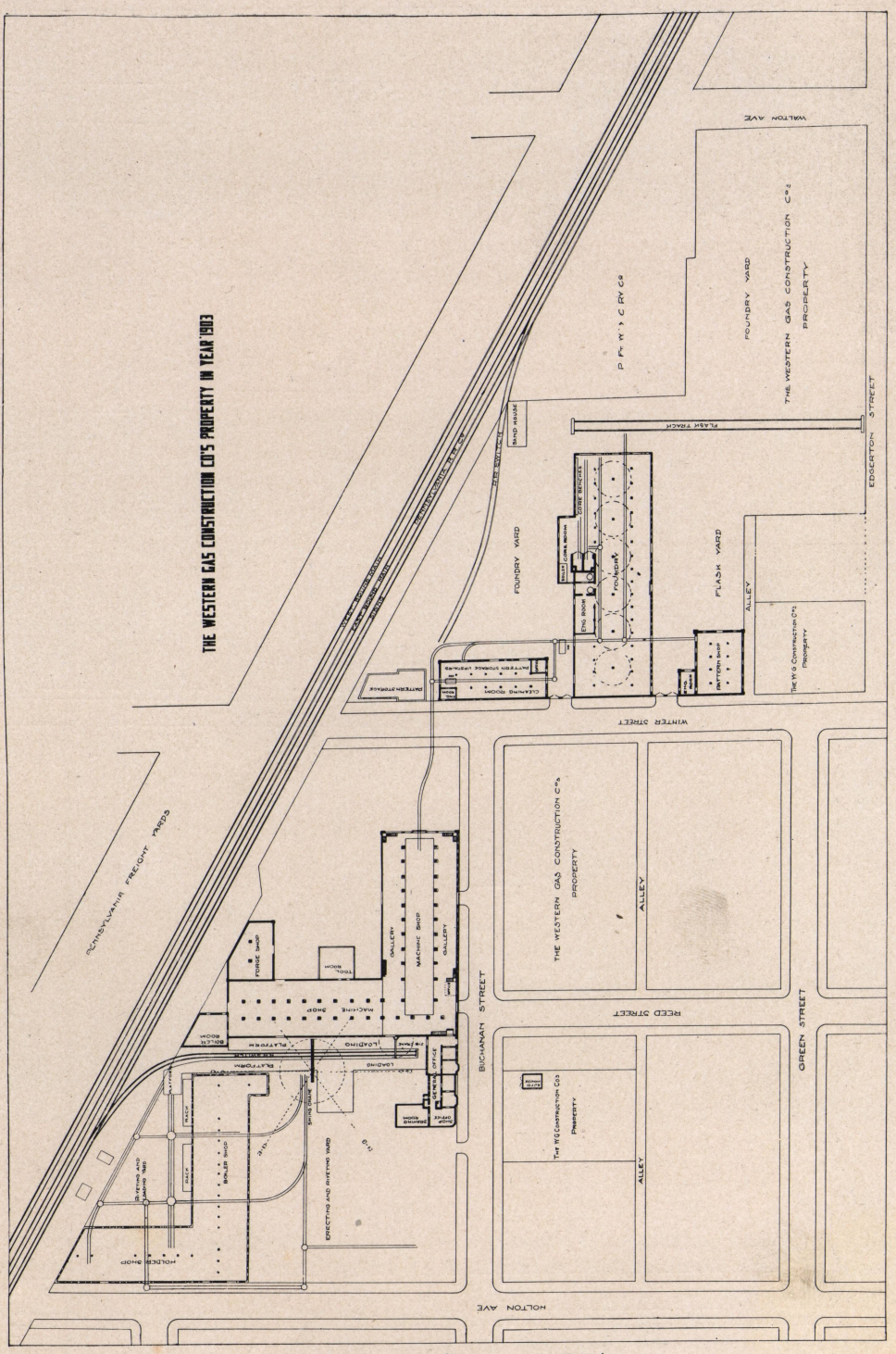
OUR WORKS, 1895.

INTERIOR MACHINE SHOP, 1895.

The business, however, kept growing notwithstanding the panic, and experiencing more and more difficulty in securing satisfactory foundry work, as well as shell work, not only as to quality of work required but also deliveries; it was decided, so to say, to "to take the bull by the horn," and establish both foundry and boiler shop of our own, and about one-third of each of the present shops were built in 1900, each having a capacity of from one to three times our purchases up to that time, so we felt justified in assuming our needs had been taken care of for several years.



PROPERTY AND BUILDINGS, 1900.



PROPERTY AND BUILDINGS, 1904.

That the growth of the business was much underestimated was quickly demonstrated as to the boiler shop and foundry, by the energetic adaptation and introduction of new designs of gas apparatus, such as having taken up vigorously the introduction of an improved P. and A. tar extractor, with the earlier introduction of which, our Mr. Guldlin had been identified in 1882, when employed as engineer with Mr. James R. Smedberg. The popularity and resultant large orders of "Western Gas" design of valves; the introduction of the duplex purifier system; improved form of washers, both for coal gas and water gas. since further developed and patented, and further improvements in its water gas apparatus, as well as the introduction of the Company's system of coal gas condensation with intermediate tar extraction, on which patent was granted, as well as the introduction in this country of the Holmes PatentRotary Scrubber, which has already established such an unprecedented record abroad, resulted in such a volume of business that in 1902 it was clearly demonstrated, that unless radical measures were taken for works of ample capacity it would be a question and a very serious one, of not being able to fill orders as offered. It was then decided to act accordingly, disregarding all previous consideration, and plans were immediately prepared for such radical extension and rebuilding of its works, as is represented by same as they stand to-day.

All idea of conservatism was disregarded, additional ground had gradually been secured till the real estate reached over twelve acres. Entire equipment was changed to electrical driven tools in all departments, complete heating and ventilating systems were introduced throughout the works; the pattern and pattern storage departments, as well as cleaning shop for castings were separated from the foundry and taken care of in commodious independent brick buildings. The forge shop was also divorced from the machine shop and developed into a modern and separate department by itself in a brick building. The foundry was practically trebled in capacity; the original machine shop was entirely remodeled, forming the central part of the new gallery design of modern machine shop equipped with double decked electric traveling cranes, and the 1895 machine shop reconstructed. The office building, which had proved as inadequate as the works was doubled in size; the boiler or steel shop received a similar treatment, and all the commodious yards were arranged for economical handling and storing of material, by additional railroad switches, etc.

When considering the fact that during all this reconstruction and additions, the Company was loaded with urgent orders, embracing some of the largest contracts it had ever undertaken, the magnitude of the work can be appreciated. Everything was finally brought into proper working condition, with a force of employees reaching practically four hundred, not including the large field force.

FRONT OF OFFICE AND MACHINE SHOP,
LOOKING TOWARDS FOUNDRY AND CLEANING ROOM.

This brings the history of the plant up to January, 1904, as unquestionably the largest plant in the country exclusively devoted to the manufacture of gas apparatus. It had, however, during 1903, been found extremely difficult to obtain satisfactory quotations and deliveries on gas holders, which customers frequently requested to be included in contracts offered, and for which the Company had previously had very satisfactory business relations with some of the leading firms, making this branch of the business a specialty, and as it was quite evident that this difficulty would increase rather than diminish, the question of also including a holder department received very serious consideration, and finally in the spring of 1904, it was decided to also add such equipment to the plant and the necessary construction work was immediately undertaken, including the installation of a complete modern equipment of special tools for the construction of gas holders and steel tanks up to 1,000,000 capacity, in addition to its previous complete equipment for general wrought iron and steel work

A separate wood working department was also provided for to take care of the rapidly growing business in the manufacture of C. R. Faben's patent trays for purifiers, which proved very popular, as had a previous patent by Mr. Faben, embracing his ammoniacal liquor and tar displacement apparatus for hydraulic mains, as manufactured by the Company.

A number of detail improvements in gas works construction resulted, which in no small way added to the Company's business; as a result of two European trips, during which the President of the Company made a thorough investigation of European practices and designs, and which resulted in establishing business relations with the Manoschek firm of Vienna. Austria, and the W. C. Holmes & Company, of Huddersfield, England, for exchange of design, and also through the colaboration of Mr. A. B. Slater, M. E., now in full charge of the engineering work of the Company, and who for a number of years previous had acted as confidential Consulting Engineer to the President and Chief Engineer, Mr. Guldlin, and whose special qualifications are attested by his active membership in all the gas engineering associations of national character at home and abroad. It is only proper to state here that the hearty co-operation received from practically all our customers, has materially aided the Company in continuing its policy of improvements and raising the standard of its production to its present position. All suggestions coming from such sources were promptly followed up and acted upon by our engineers, and this in connection with its established policy of following up all its contracts or apparatus sold, to reach and maintain the highest possible efficiency, has unquestionably been a source of gratification to our numerous customers, who gradually learned that in placing their work in our hands, they were not merely buying a piece of apparatus but also securing the continued advice and co-operation of the Company's Engineers in its operation.

In the above sketch of the Company's history, frequent references have been made to patents. It is only proper to state, however, that the Company's policy is not one of selling or disposing of the apparatus on the basis of patent rights. With its extended manufacturing facilities it sells apparatus on a manufacturers basis; the object of patenting improvements as developed being purely and simply for the purpose of protection to its designs, as against unfair competition of such parties as have in no way contributed to the development of an apparatus, who were often too willing and did copy the results after the Company's extensive and expensive experiments had terminated successfully. We do not claim having reached perfection; the work of the Engineer never does. We believe, however, our policy has resulted in a material advancement in our profession, and we propose by active and persistent work to continue this line of operation. If it should, as we hope, result in further extensions of what is now the largest plant of its kind in the country, ample means are available to take care of such.

MAIN OFFICE AND ACCOUNTING DEPARTMENT.
LOOKING FROM HALLWAY.

MAIN OFFICE AND ACCOUNTING DEPARTMENT.
LOOKING TOWARDS HALLWAY.

RECEPTION ROOM.

PRESIDENT'S ROOM.

ENGINEER'S ROOM.

PURCHASING AND SHIPPING DEPARTMENT.

SHOP ORDER DEPARTMENT.

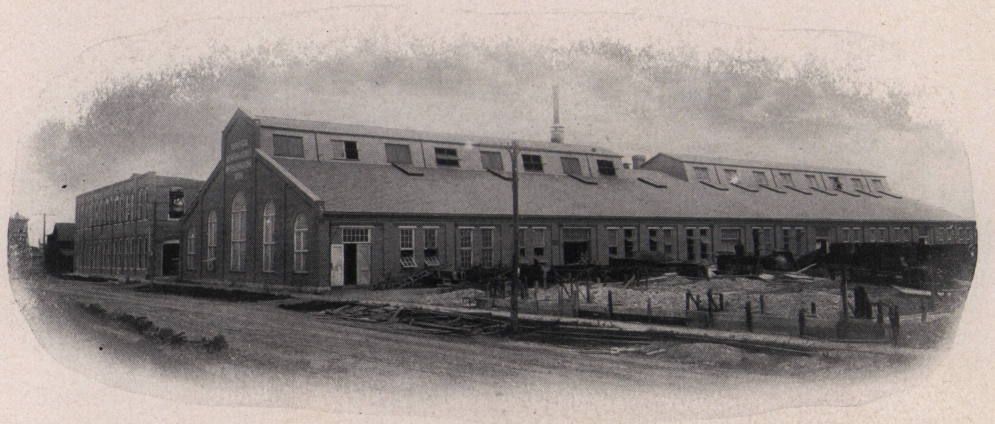
CORRESPONDENCE DEPARTMENT.

DRAFTING ROOM.

FOUNDRY YARD AND BUILDINGS
FROM PENNA RY.

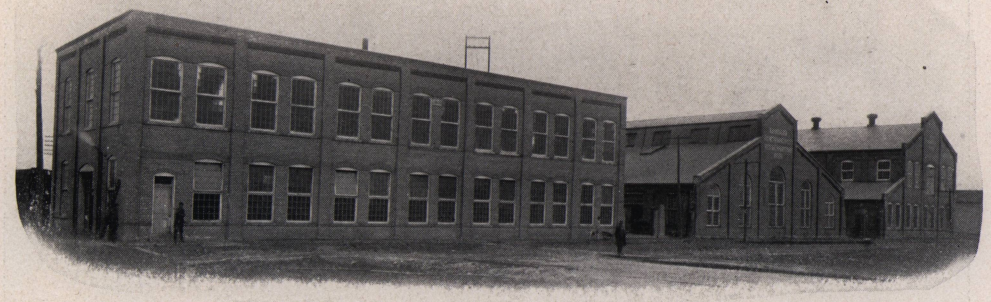
PATTERN AND WOODWORKING SHOP.
Floor Space 7,102 Square Feet.

INTERIOR PATTERN SHOP.
All Tools Run by Single Motor.



FOUNDRY.
Taken before Pattern Shop was built, showing full length.
Floor Space 24,358 Square Feet.

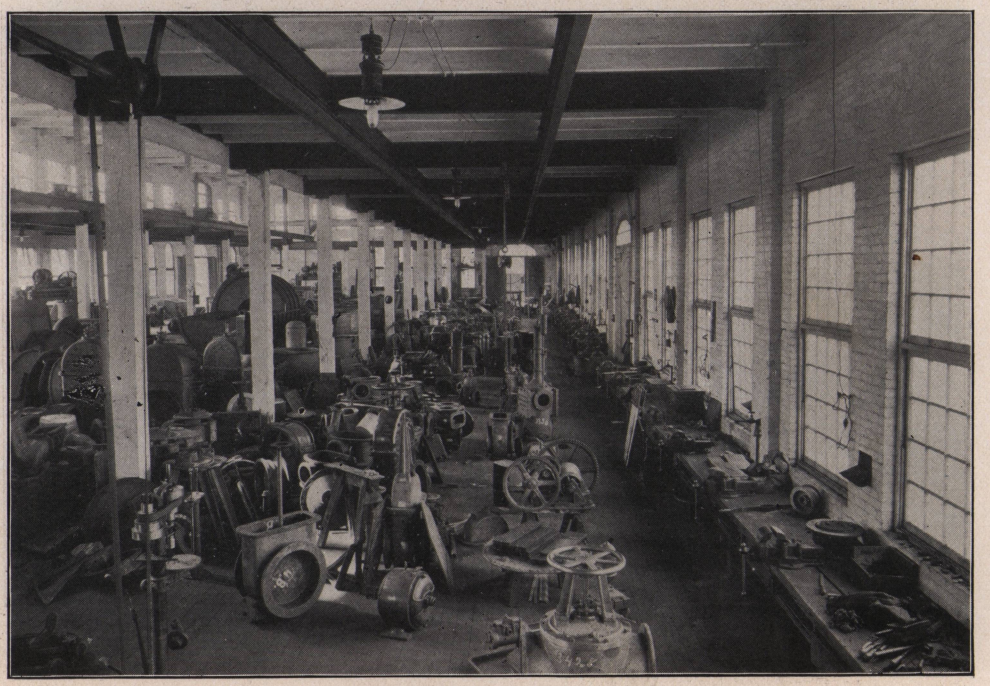
INTERIOR FOUNDRY.
Cranes Operated by Electricity.



CLEANING ROOM AND PATTERN STORAGE.
Floor Space 11,102 feet.

INTERIOR CLEANING ROOM.

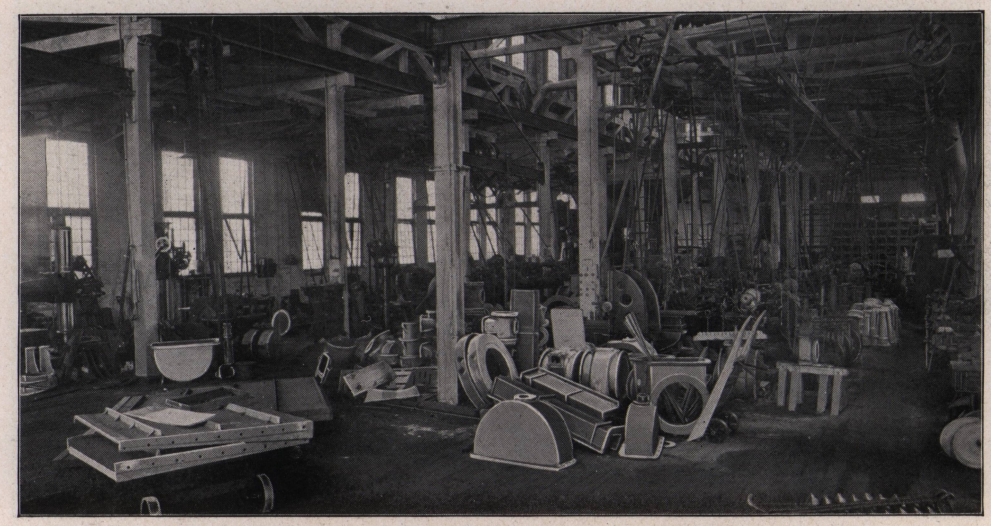
INTERIOR NEW MACHINE SHOP.
Looking towards old wing. Floor Space 21,271 Square Feet



INTERIOR NEW MACHINE SHOP.
Showing our facilities for Bench Work.

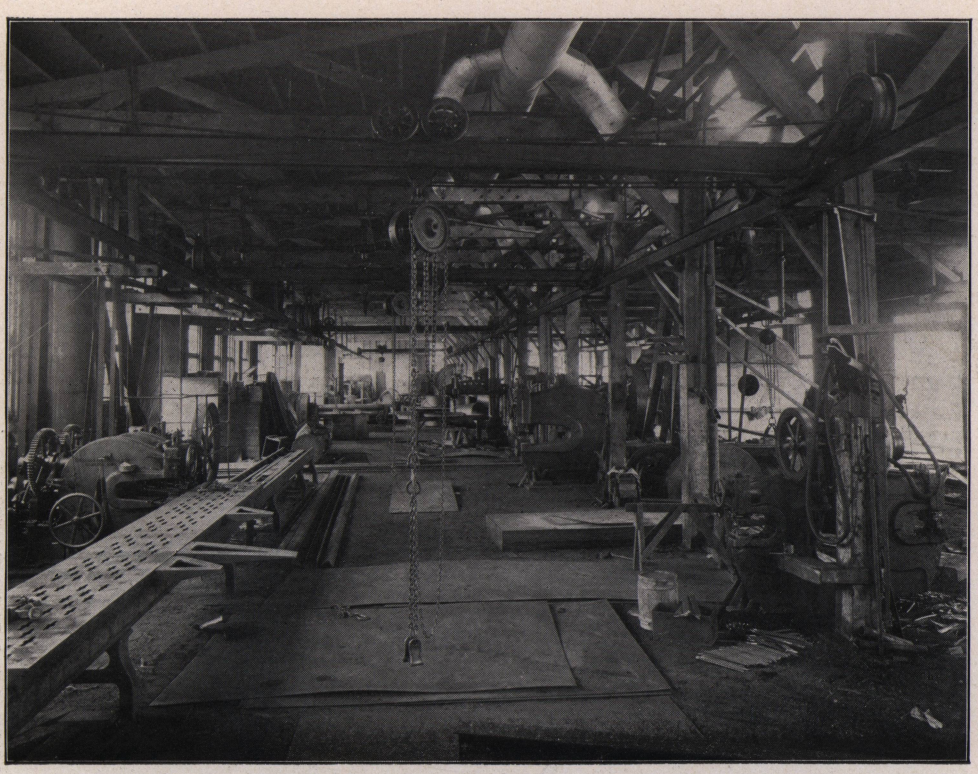
INTERIOR NEW MACHINE SHOP.
View from old wing, showing Traveling Cranes and Galleries.

INTERIOR OLD WING MACHINE SHOP.
View from intersection new wing. Floor space 16,514 square feet.



VIEW IN OLD WING MACHINE SHOP.
Showing arrangement of Lathes run in gangs by Motors.

GENERAL VIEW OF WORKS FROM PENNA RY.
Showing Holder, Boiler, Machine, Forge Shops, and Steam Plant, with North Yard and Sidings.

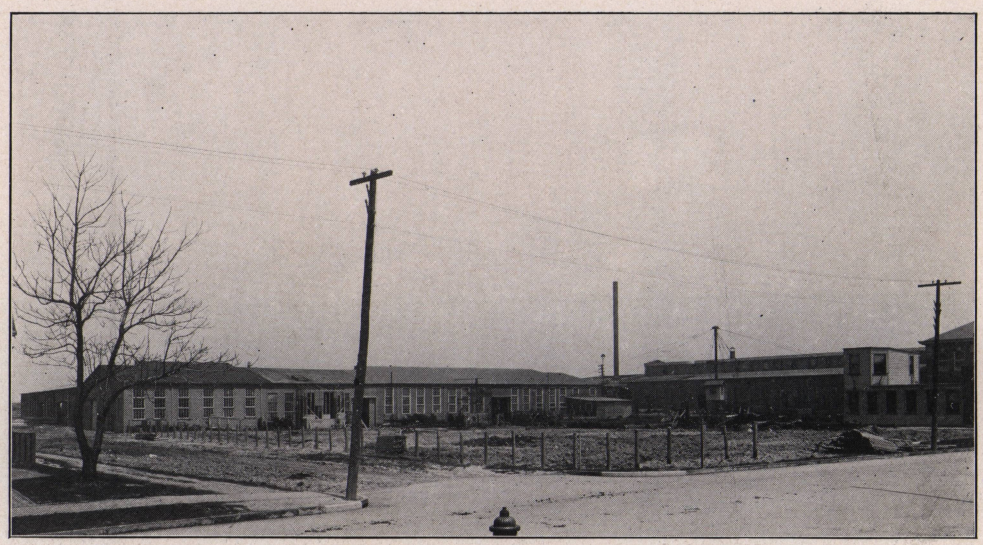


INTERIOR BOILER SHOP.
Floor space 13,620 square feet.

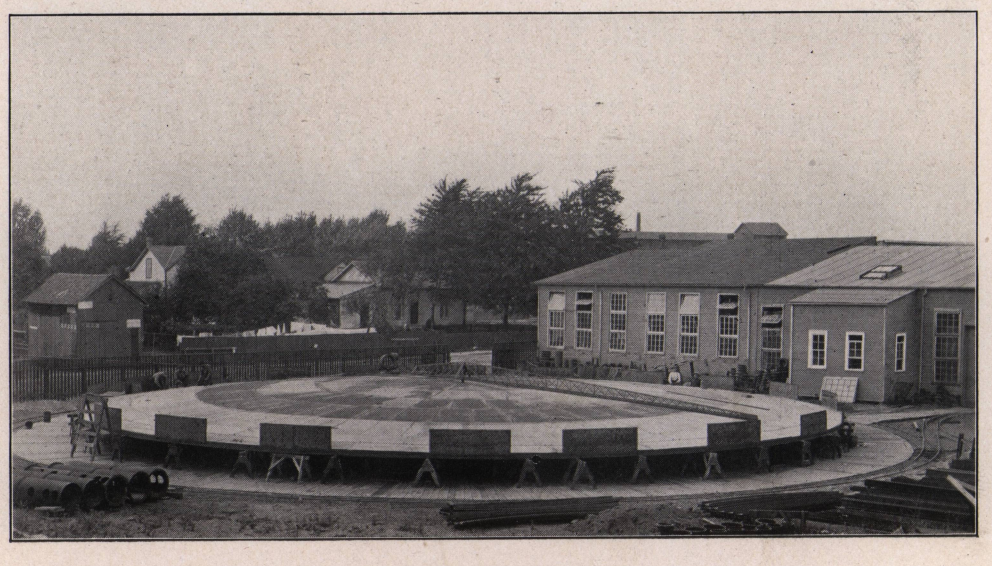
INTERIOR HOLDER SHOP.
Floor space 8,800 square feet.

INTERIOR POWER DEPARTMENT.
Floor space 4,168 square feet.

INTERIOR FORGE DEPARTMENT.
Floor space 2,466 square feet.



VIEW SHOWING HOLDER, BOILER AND OLD WING MACHINE SHOP,
DRAFTING ROOM AND HOLDER ERECTION YARD.



HOLDER ERECTION YARD,
With Crown for 500,000 cubic foot Holder in process of fitting up.

LOADING PLATFORM,
Showing Railway Siding and Electric Loading Crane.